

X. INFRASTRUCTURE: EFFICIENT PUBLIC INVESTMENTS

The provision of infrastructure and public facilities with sufficient capacity to handle proposed new development is a key concern of growth management planning. Urban centers already have extensive investments in infrastructure, yet development pressures tend to focus on semi-rural and rural lands on the fringes of metropolitan areas. There is evidence that the extension of new roads and other services into undeveloped areas can be an invitation for more sprawl development.



Certain types of infrastructure must be planned and executed on a regional basis. A prime example is transportation. Regional planning agencies in Massachusetts act as designated “Metropolitan Planning Organizations” for the purposes of state and federal transportation planning for their regions. Traffic congestion, new roads, and expansion of road capacity are always among the most contentious issues in planning. The location and capacity of highways and other transportation has a very strong determining effect on the location of new development.

Techniques for efficient infrastructure investment

Functional and capital improvement plans. Many communities inventory their facilities, make projections of future needs, and prepare five-year capital improvement plans to set priorities in meeting those needs.

Adequate public facilities requirements. APF regulations require that public facilities, such as roads and sewers must be available with sufficient capacity to serve new development before subdivisions are approved and building permits issued.

Exactions, impact fees, and special districts. Developers in many jurisdictions are required to make contributions towards the public costs that will be generated as a result of their development, or to pay for mitigation of undesirable impacts (such as traffic congestion) expected to be created by their development. In Massachusetts, mitigation requirements must be linked to impacts directly caused by the development project in question. Special taxing districts, also called improvement districts, can be created to finance infrastructure for new development areas or provide improved facilities for existing property owners. The underlying principle is that improvements are paid for by the people who will benefit from them.

Transportation demand management and congestion management. Traffic congestion can be mitigated by reducing demand — the use of single-occupancy vehicles in particular — as well as increasing capacity. A variety of incentives, subsidies, peak hour scheduling programs, and other measures have been instituted throughout the state to reduce traffic and improve air quality. Employers organized in Transportation Management Associations (TMAs) can also mitigate traffic congestion by providing transportation and flex-time options to their employees.

Project point or rating systems. Projects can be evaluated using point systems to review the acceptability of the project’s impacts on the community according to criteria that include the adequacy of services and facilities.

INFRASTRUCTURE ISSUES IN THE NORTHERN MIDDLESEX REGION - CHARRETTE RESULTS

Traffic, extension of public water and sewer systems, and funding of large projects are among the most contentious issues in many Northern Middlesex communities. Because Route 3 carries growing numbers of commuters from New Hampshire, traffic congestion is increasing despite our region's relatively stable population. Widening of Route 3 has been a major goal for a number of years. Whether it will have the presumed effect of mitigating congestion on alternate routes, such as Route 3A, or will simply slow the rate of growth in congestion, remains to be seen. Likewise, public water and sewer service extension projects in many cases affect already developed areas that currently depend on older septic systems or private wells. The new service will be beneficial in eliminating pollution from failing septic systems, but it may also exacerbate inter-basin water transfers. Extension of new water and sewer lines may also encourage more residential density, which may or may not be advisable, depending on the location.

In addition to the need for more transportation improvements, including bridge improvements, charrette participants focused on the need for more inter-municipal cooperation and sharing of facilities and services. The existence of a number of highly independent water and sewer districts, in some cases within a single town, can make effective planning and coordination difficult. Participants also called for a mechanism to coordinate local permitting processes for projects, typically near municipal borders, that impact more than one community. The high cost of new projects and improvements is a powerful incentive to seek more municipal cooperation.